

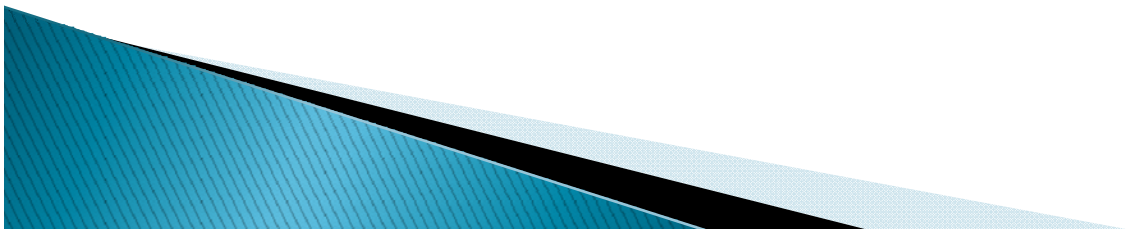
Using Common Formative Assessments to Drive Instruction & Increase Collaboration

Angel Zickefoose
Billings Public Schools
zickefoosea@billingssschools.org

Funded through an ESEA Title II Part B
Mathematics and Science Partnership Grant awarded by
the Montana Office of Public Education.

Background Information

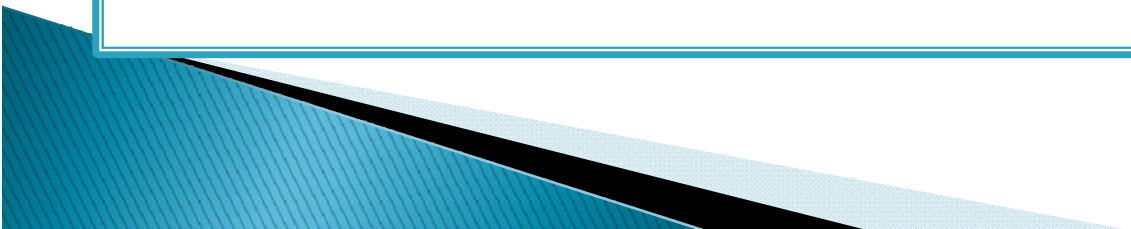
- ▶ 2 grants – Middle School & Elementary School
 - Riverside MS: 5 mathematics teachers; 500 students
 - Newman Elem: 6 mathematics teachers (grades 4–6); 112 students
 - 1 Math Coach
 - Rocky Mountain College – STEM faculty
 - Montana State University – Billings
- ▶ Goals
 - Increase student achievement
 - Build and strengthen Professional Learning Community



Professional Learning Community

- ▶ Training from PLC Summit – Solution Tree
- ▶ Team building & trust building
- ▶ Meet monthly for a school day
 - Research article or video on best practices
 - Discuss current school issues
 - Collaborate as a group
 - Work as grade level on assessments

Ensuring That Students Learn

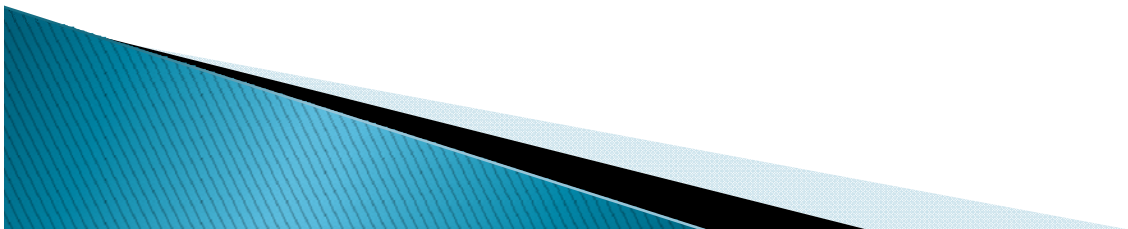
- What do we want each student to learn?
 - How will we know when each student has learned it?
 - How will we respond when a student experiences difficulty in learning?
 - How will we respond when a student already knows the content?
- 

What do we want each student to learn?

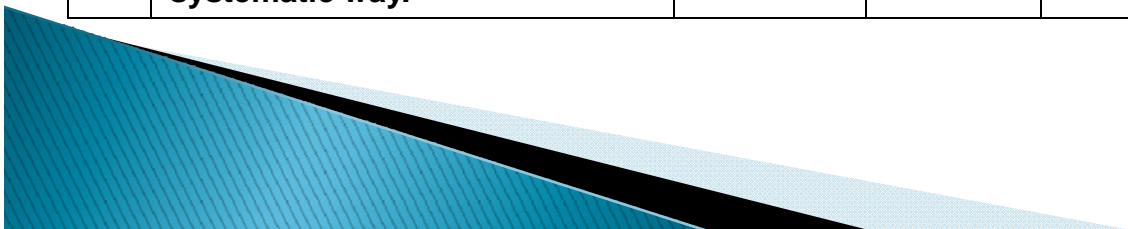
- ▶ **Essential Learner Outcomes** (power standards (Reeves), guaranteed and viable curriculum (Marzano), essential academic goals (Lezotte), learning intentions and success criteria (Hattie) or learning expectations and tangible exemplars of student proficiency (Saphier))
 - Endurance
 - Leverage
 - Readiness
 - Alignment
 - State Standards
 - District Curriculum
 - Vertical

Essential Learner Outcomes

- Learning targets are given to the students at the beginning of each chapter or unit
- Learning targets are placed on the board for daily reference
- Learning targets are used to create common assessments

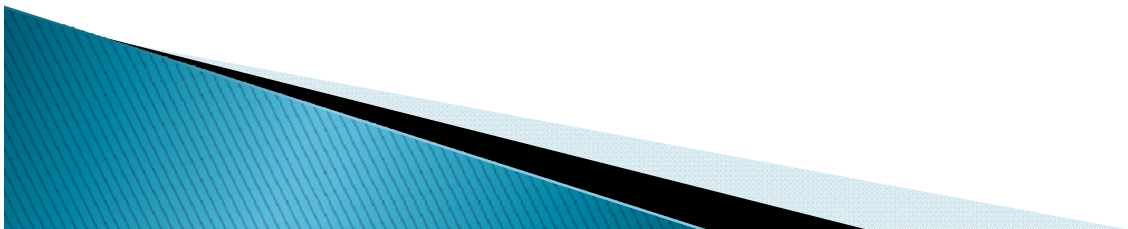


	Learning Target	Evidence	Ready (Y or N)	Right	Why? Lucky Guess <u>or</u> Understand	Wrong	Why? Simple Mistake <u>or</u> More Study
1	I understand good mathematical justifications and can give justifications for a statement about numbers.						
2	I can use conventions for multiplication and division.						
3	I can substitute values for a letter and find the solutions.						
4	I understand the number properties and can apply them.						
5	I can use letters in the formulas for the area and perimeter of rectangles.						
6	I understand the distributive property.						
7	I can make a table of a situation and express relationships in terms of letters.						
8	I can graph situations.						
9	I can solve problems in a systematic way.						



What do we want each student to learn?

- ▶ Constant attention to enacted and attained curriculum
- ▶ Typical teaching cycle
 - Pre-test – Teach – Assess – Move to next unit
- ▶ Our teaching cycle
 - Pre-assess – Teach – Assess – Reteach – Assess



How will we know when each student has learned it?

- ▶ Formative Assessments
- ▶ Assessment **FOR** learning
 - Informs teacher regarding effectiveness of teaching
 - Informs students regarding progress in becoming proficient
 - Checks for understanding, used frequently in classrooms

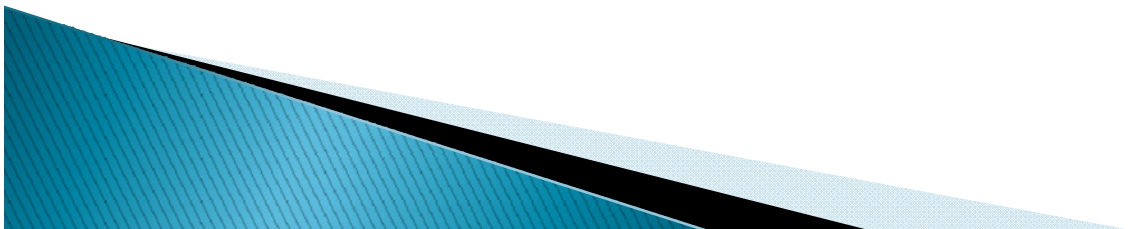
Formative Assessment

- ▶ Collaborative teams use assessments to:
 - identify students who are experiencing difficulty in learning
 - provide those students with additional time and support in a way that does not remove them from new direct instruction
 - give the students additional opportunities to demonstrate their learning

▶ DuFour & DuFour, Oct. 2010

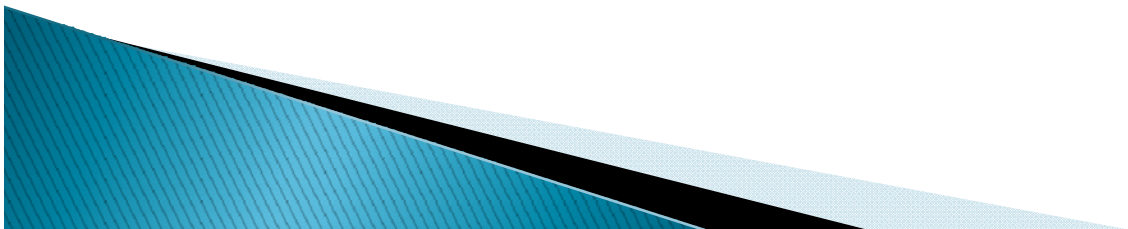
Summative Assessment

- ▶ Assessment **OF** learning designed to provide a final measure to determine if learning goals have been met. (Ainsworth & Viegut, 2006)
 - ▶ Graded
 - Each standard is assessed separately
 - Some rubrics
 - Based on Essential Learner Outcomes
-
- ▶ Difference between the two is the purpose and use of the assessment



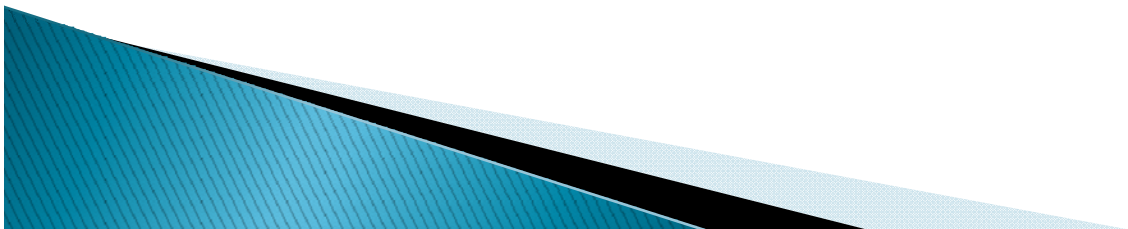
How will we respond when a student experiences difficulty in learning?

- ▶ Recording Sheets to determine:
 - Reteach
 - Allow Corrections, Retests
 - Extra time



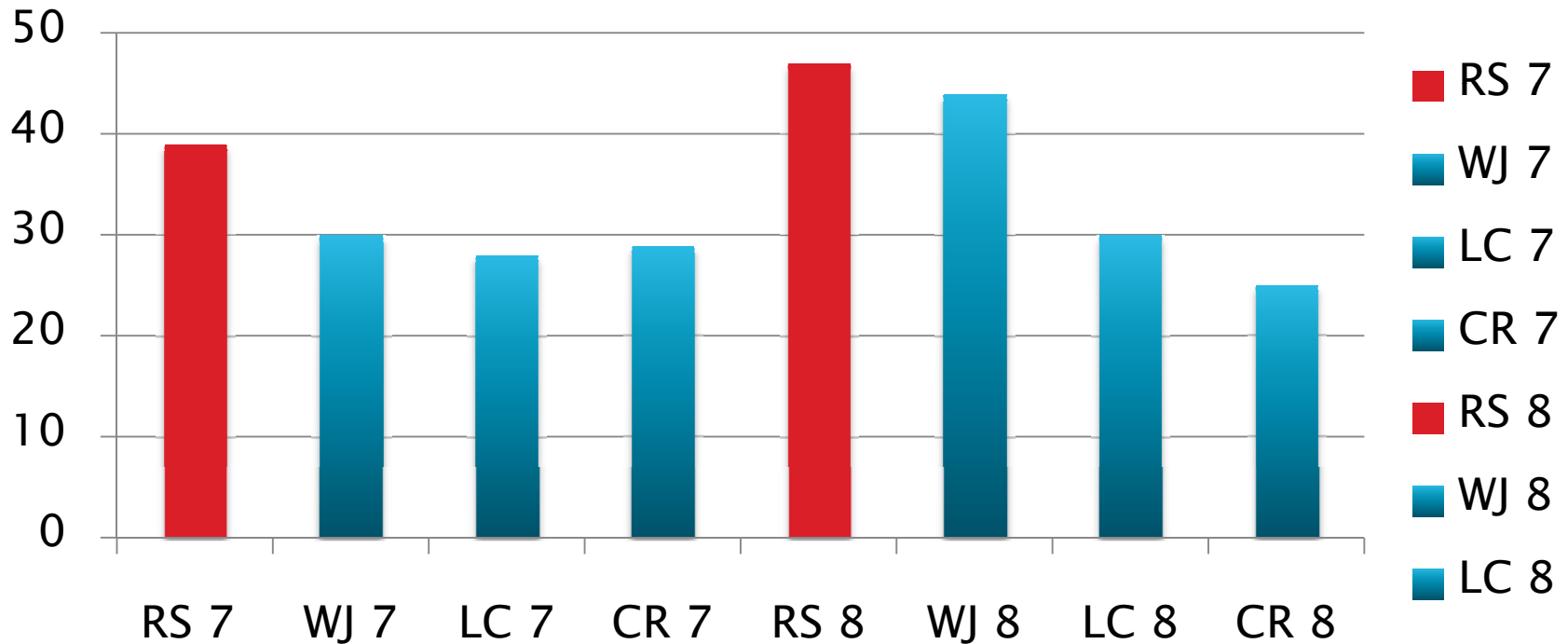
How will we respond when a student already knows the content?

- ▶ Differentiation Binders
- ▶ Differentiation Choice Boards
- ▶ Differentiated Activities in the classroom



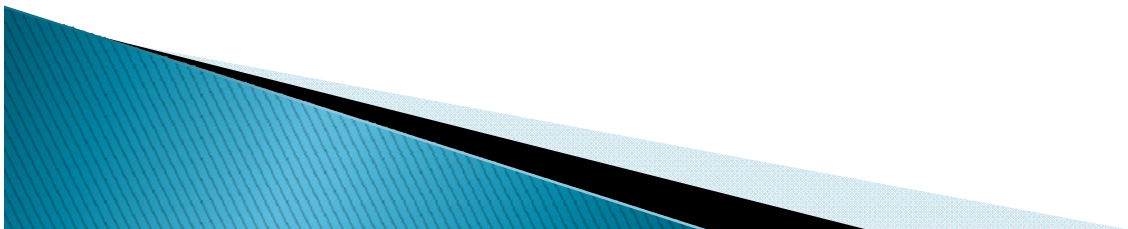
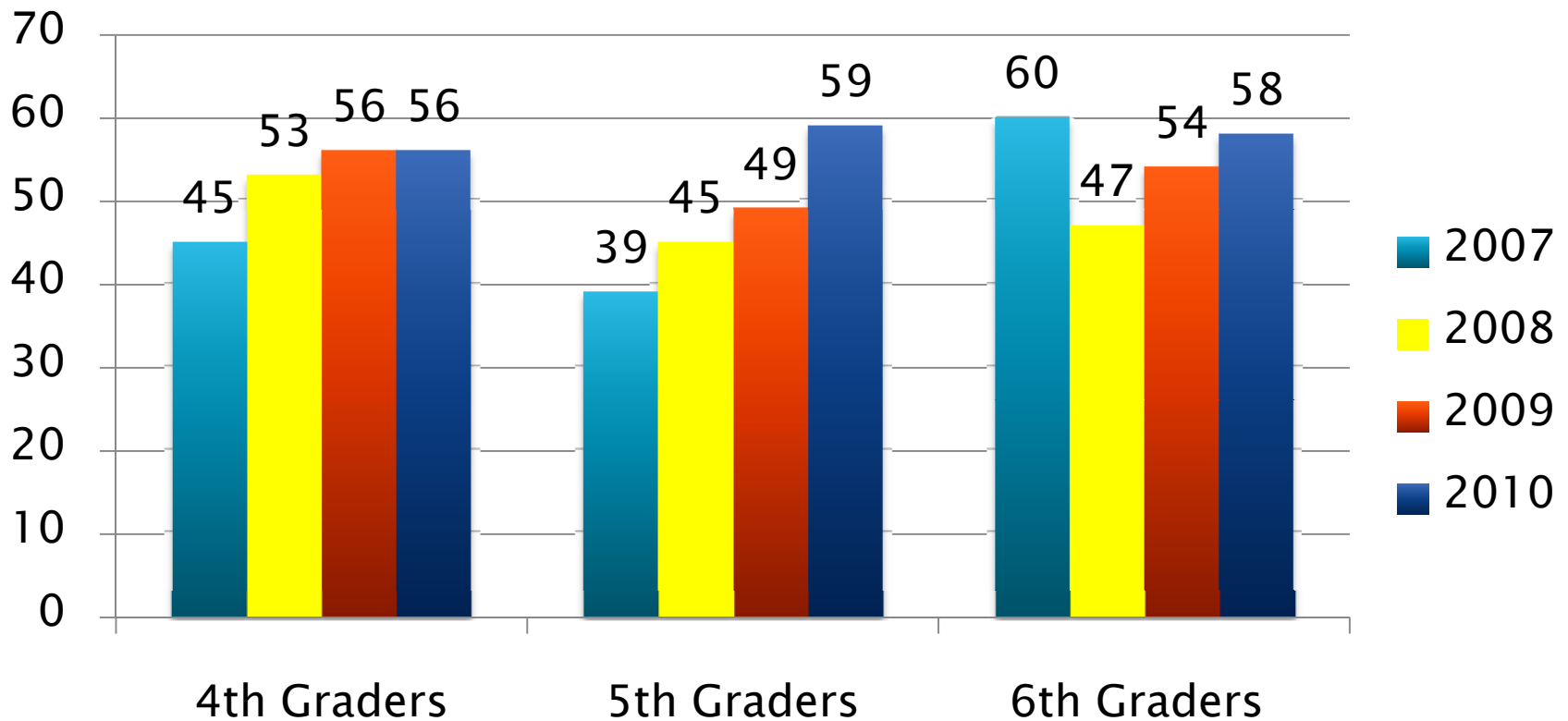
Results – NWEA

Percent of Students with Average or Above
Average Growth on NWEA



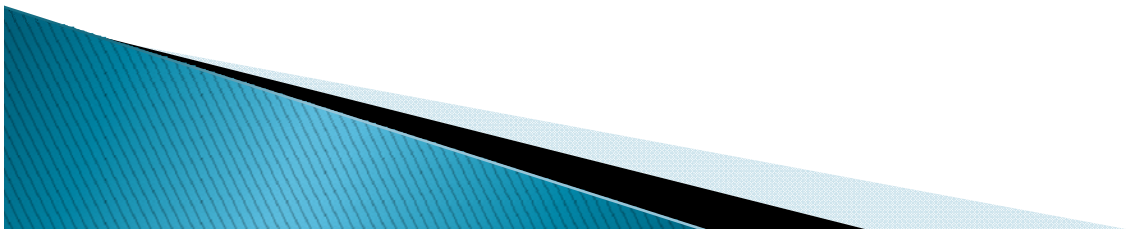
Results – MTCas

Percent Proficient or Advanced



Lessons Learned

- ▶ Building Trust was a critical component
- ▶ Agreeing on the Essential Learner Outcomes is difficult
- ▶ Grading continues to be a topic of conversation
- ▶ It's hard work – but rewarding work
- ▶ It takes time



Handouts Available

- ▶ If you would like copies of formative assessments, summative assessments or recording sheets, visit
- ▶ Elementary School
 - <https://sites.google.com/a/billingsschools.org/math-through-inquiry/>
- ▶ Middle School
 - <https://sites.google.com/site/mspmathleaders/>
- ▶ E-mail me at zickefoosea@billingsschools.org

